

REMARKS

Applicant has amended the specification including the title and the paragraph beginning on page 12, line 5 amending claims 1, 16, 20, 29 and 35. Claims 1-4, 7-9, 14-23, 26, 27, 29 and 33-41 remain pending. New claim 41 has been added. Corrected versions of the drawings approved by the Examiner are attached with this Amendment. Reconsideration of the application is respectfully requested.

Claims 1 and 20 have been amended to more succinctly claim the invention. More particularly, claims 1 and 20 now recite a slidable relationship between the first section and second section where the sections are slidable with respect to each other along the longitudinal axis of the stent. No new matter has been added because support for these amendments is found in the drawings and in the specification. For example, in FIGS. 4 and 6 it is clearly shown that the first section 21 and the second section 24 of the cover 20 slide with respect to each other along the longitudinal axis of the stent.

Claims 16, 29 and 35 were rejected under 35 U.S.C. § 112 second paragraph. In response the Applicant has amended claims 16 and 35 to incorporate the cover material PET and amended claim 29 to depend from claim 27, all changes being in accordance with the Examiner's suggestions.

Claims 1-4, 7-9, 14, 17-23, 26, 27, 29, 33 and 36-41 were rejected under 37 C.F.R. §102(e) as being anticipated by Freidberg (U.S. Patent No. 6,254,627). The cited reference is directed to a jacketed stent assembly where as shown in FIG. 7, a ribbon of

tissue is spirally wrapped around an unexpanded stent 12 in such a manner so that adjacent turns of the ribbon tissue overlap. As the stent expands, the ribbon unwraps in order to provide the jacket 14 configured to cover the expanded stent with a circumference about equal to the circumference of the expanded stent. In view of the Applicant's amendment to claims 1 and 20 regarding first and second cover sections slidable with respect to each other along the longitudinal axis of the stent, Freidberg does not anticipate the invention as claimed. There is no teaching within the reference to incorporate longitudinal slidability within a cover as claimed in the present invention. The passages and figures cited by the Examiner (FIG. 7(a), column 5 line 63 through column 6, line 6) merely describe and illustrate a ribbon of tissue capable of unwrapping upon stent expansion, but are silent as to a cover material including first and second sections slidable with respect to each other along the longitudinal axis of the stent. While the ribbon can unwrap under expansion and it may be possible for parts of the ribbon to slide with respect to each other, there is absolutely no teaching of sliding along the longitudinal axis of the stent. Moreover, the Freidberg patent does not disclose a first, second or third section, the selection of which by the Examiner being completely arbitrary. It is respectfully submitted that it is improper to arbitrarily partition jacket 14 into sections to meet Applicants' claims when the Freidberg patent is simply silent on the issue. The jacket 14 is a continuous ribbon that is not sectioned, and accordingly does not meet the claims. It is therefore respectfully submitted that the cited reference does not anticipate the present invention as claimed in independent claims 1 and 20 and dependent claims 2-4, 7-9, 17-19, 21-23, 27, 29, 33 and 36-41.



Claims 15 and 34 were rejected under 35 U.S.C. § 103(a) as being obvious over Freidberg. It is respectfully submitted that the teachings of the reference fail to suggest the invention claimed in underlying independent claims 1 and 20 and therefore fails to suggest any claims depending therefrom. More particularly, as discussed in the prior paragraph, Freidberg fails to suggest a cover with first and second sections slidable with respect to each other along the longitudinal axis of the stent as claimed in independent claims 1 and 20. Instead, Freidberg discloses a cover material capable of unwrapping upon stent expansion. It follows that claim 15 which depends from claim 1 and claim 34 which depends from claim 20 lead to the conclusion that the claims are not obvious over Freidberg because there is no suggestion in Freidberg of a cover with first and second sections slidable with respect to each other along the longitudinal axis of the stent as set forth in claims 1 and 20 respectively.

Claims 16 and 35 were rejected under 35 U.S.C. § 103(a) as being obvious over Freidberg in view of Sogard et al. (U.S. Patent No. 6,139,573). It is respectfully submitted that the teachings of the secondary reference fail to overcome the shortcomings of the primary reference to suggest the invention claimed in underlying independent claims 1 and 20, and therefore fail to suggest any claims depending therefrom. More particularly, as pointed out above, Freidberg fails to suggest a cover with first and second sections slidable with respect to each other along the longitudinal axis of the stent as claimed in independent claims 1 and 20. Instead, Freidberg discloses a cover material capable of unwrapping upon stent expansion. Although Sogard et al. discloses as shown in FIG. 6, a composite tubular endoprosthesis formed by combining an open construction


stent 20 between an inner tubular liner 14 and an outer tubular liner 19, there is no suggestion to combine with Freidberg in the disclosure. Claim 16, which depends from claim 1, and claim 35 which depends from claim 20, lead to the conclusion mentioned above that the claims are not obvious over Freidberg in view of Sogard et al. because there is no suggestion in either disclosure of covers with first and second sections slidable with respect to each other along the longitudinal axis of the stent as set forth in claims 1 and 20, respectively.

Attached hereto is a copy of the revised approved drawings submitted in Applicant's Response of June 14, 2002 along with a marked-up version of the changes made to the specification and claims by the current Amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

In light of the above amendments and remarks, Applicants earnestly believe that claims 1-4, 7-9, 14-23, 26-27, 29 and 33-41 are in condition for allowance and respectfully request that the application be passed to issue.

Respectfully submitted,

FULWIDER PATTON LEE & UTECHT, LLP

By: 
John S. Nagy
Registration No. 30,664

JSN:EPW:jeb
Enclosure

Howard Hughes Center
6060 Center Drive, Tenth Floor
Los Angeles, CA 90045
Telephone: (310) 824-5555
Facsimile: (310) 824-9696
Customer No. 24201

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please enter the following substitute paragraph for the specification at page 12, line 5 as follows:

As shown in FIGS. 4-6 the stent struts 19 are covered by tubular cover 20. In FIG. 4, the stent 10 is in the unexpanded condition as mounted on the balloon 14. The tubular cover is formed of a first section 21 having a distal end 22 and a proximal end 23 and a second section 24 also having a distal end 25 and a proximal end 26. The distal end 25 of the second section 24 is attached to the distal end of the stent by adhesive bonding, shrink bonding, or other similar methods as will be described herein. Likewise, the proximal end 23 of the first section 21 is bonded to the proximal end of the stent. In keeping with the invention, an overlap portion 27 is formed by the overlap of the first section and the second section. More specifically, the [distal] proximal end [22] 26 of the [first] second section overlaps the [proximal] distal end [26] 22 of the [second] first section so that the [first] second section is slidable relative to the [second] first section. It is intended that the cover material 20 be substantially frictionless so that the overlapping portions can slide relative to one another. Thus, when the stent is expanded by the balloon from the configuration shown in FIG. 4, to that depicted in FIG. 6, the first section of the tubular cover slides relative to the second portion of the tubular cover at the overlap portion 27. Since the ends of the first section and the second section are attached to the stent at only one of the ends of each section, the stent and the cover will not be

constrained longitudinally when expanded. Any stent shortening will be as a result of the stent material and pattern, and not due to the stent cover 20 foreshortening upon expansion. The ends of the first and second sections are shown having rounded edges which will allow the device to travel through a vessel more easily. The ends could be tapered as well. In fact, the cover material is so thin that the ends should have little or no impact on the delivery profile.

IN THE CLAIMS

1. (Twice Amended) A stent assembly, comprising:
an intravascular stent;
a cover material surrounding the stent and having a first section and a second section, the first and second sections forming an overlap portion; and
[the overlap portion being configured so that the first section slidably contacts the second section when the stent is expanded.]
the overlap portion being configured so that the first section and the second section are slidable with respect to each other along the longitudinal axis of the stent.

16. (Twice Amended) The assembly of claim 1, wherein the cover material is formed from a biocompatible material taken from the group of materials consisting of ePTFE, [PTFE] PET and polyurethane.

20. (Twice Amended) A covered stent assembly, comprising:
an intravascular stent having a distal end and a proximal end;

a tubular cover material covering at least a portion of the stent wherein the cover material is formed of a first section and a second section; and the first section and second section each having a proximal end and a distal end, wherein the proximal end of the second section and the distal end of the first section are slidable along the longitudinal axis of the stent [forms an overlap portion with the distal end of the first section] and form an overlap portion so that as the stent expands the overlap portion shortens along the longitudinal axis of the stent.

29. (Amended) The assembly of claim [28] 27, wherein the first section and the second section are configured for relative sliding movement at the overlap portion when the stent is expanded.

35. (Twice Amended) The assembly of claim 20, wherein the cover material is formed from a biocompatible material taken from the group of materials consisting of ePTFE, [PTFE] PET and polyurethane.

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